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HWMNRCRA Closure Plan for the VES-SFE-20 Hot Waste Tank System at the Idaho Nuclear Technology and Engineering Center



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ABSTRACT

The Idaho Hazardous Waste Management Act/Resource Conservation and Recovery Act Closure Plan has been prepared for the VES-SFE-20 hot waste tank system at the Idaho Nuclear Technology and Engineering Center at the Idaho National Engineering and Environmental Laboratory. This closure plan has been prepared according to the March 2001 Memorandum of Agreement between the Idaho Department of Environmental Quality and the U. S. Department of Energy Idaho Operations Office regarding submittal of a closure plan for the VES-SFE-20 hot waste tank system. This plan presents the Idaho Administrative Procedures Act 58.01.05.009 (40 Code of Federal Regulations ~~Part~~ 265 Subpart G) closure requirements and methods of achieving closure through the remedy defined in the Waste Area Group 3, Operable Unit 3-13 Record of Decision.

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ACRONYMS

ARAR	applicable or relevant and appropriate requirement
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CPP	Chemical Processing Plant
DOE	U.S. Department of Energy
DOE-ID	U.S. Department of Energy Idaho Operations Office
EPA	Environmental Protection Agency
FECF	Fuel Examination and Cutting Facility
FFA/CO	Federal Facility Agreement/Consent Order
HWMA	Hazardous Waste Management Act
IDAPA	Idaho Administrative Procedures Act
IDEQ	Idaho Department of Environmental Quality
ICDF	INEEL CERCLA Disposal Facility
INEEL	Idaho National Engineering and Environmental Laboratory
INTEC	Idaho Nuclear Technology and Engineering Center
MOA	memorandum of agreement
NCP	National Contingency Plan
OU	operable unit
P&ID	pipng and instrumentation drawing
PE	professional engineer
PEWE	Process Equipment Waste Evaporator
PRD	program requirements document

RAO	remedial action objective
RCRA	Resource Conservation and Recovery Act
RD/RA	remedial design/remedial action
ROD	record of decision
SFE	Stored Fuel Exterior
TSDF	treatment, storage, and disposal facility
VES	vessel
WAG	waste area group

HWMNRCRA Closure Plan for the VES-SFE-20 Hot Waste Tank System at the Idaho Nuclear Technology and Engineering Center

1. INTRODUCTION

This Hazardous Waste Management Act (HWMA)/Resource Conservation and Recovery Act (RCRA) closure plan has been prepared for the Vessel (VES) Storage Facility Exterior (WE)-20 radioactive waste storage tank system (hereafter known as VES-SFE-20) located at the Idaho Nuclear Technology and Engineering Center (INTEC) at the Idaho National Engineering and Environmental Laboratory (INEEL). This closure plan is written to fulfill the requirements in the memorandum of agreement (MOA) between the United States Department of Energy Idaho Operations Office (DOE-ID) and the Idaho Department of Environmental Quality (IDEQ) signed March **19,2001** (Allred **2001**). This plan presents the HWMA/RCRA Idaho Administrative Procedures Act (IDAPA) **58.01.05.009**(40 CFR **265**, Subpart G) closure requirements and methods of achieving closure through the remedy defined in the Waste Area Group (WAG) **3**, Operable Unit (OU) **3-13** *Record of Decision* (DOE-ID **1999**).

The INEEL is divided into **10** WAGs to manage environmental response actions mandated under the *Federal Facility Agreement and Consent Order* (FFNCO) (DOE-ID **1991**) between DOE-ID, the United States Environmental Protection Agency (EPA), and the State of Idaho, in fulfillment of Section 120 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, 42 USC **9601** et seq., as amended) and Executive Order **12580**. The INTEC is WAG **3** and OU **3-13** encompasses the entire INTEC facility. The OU **3-13** was investigated to identify potential contaminant releases and exposure pathways to the environment from individual sites as well as the cumulative effects of related sites. DOE-ID (**1999**) identifies remedial design/remedial action (RD/RA) objectives for seven groups of release sites in WAG **3**. The VES-SFE-20 tank system is identified as Group **7**, VES-SFE-20 Hot Waste Tank System. Remedial actions for each site were selected in the Record of Decision (ROD) in accordance with CERCLA, the implementing regulations at 40 CFR **300** (the National Contingency Plan or NCP), and EPA guidance, and with the approval of EPA and IDEQ through the document review and comment process of the FFNCO. The selected remedial action for the VES-SFE-20 tank system is removal, treatment, and disposal.

This closure specifically addresses the requirement in the IDEQ/Department of Energy (DOE) MOA to submit a HWMA/RCRA closure plan for the VES-SFE-20 tank system. The agreement states the following:

1. There is agreement that schematic piping diagrams, provided by DOE in the January **22,2001**, transmittal to IDEQ accurately describe the intended scope of the ROD.
2. There is agreement that the ROD encompasses or may be modified in accordance with the FFA/CO to encompass all or some portions of the **SFE-20** tank system.
3. There is agreement that the SFE-20 tank system is situated among solid waste management units (SWMUs) and areas of concern where various releases have occurred, and to which the **SFE-20** tank system may have contributed.
4. There is agreement that the **SFE-20** tank system will be remediated under the methods and requirements stated in the OU **3-13** ROD and that completion of the requirements in the ROD will protect human health and the environment, and will satisfy or be modified to

satisfy the closure performance standards of 40 CFR 265.111(a) and (b). The ROD will be modified or expanded, ~~as~~ required, using the process outlined in the FFA/CO.

5. There is agreement that the ROD for OU 3-13 is an enforceable document.
6. There is agreement that DOE will submit a HWMA/RCRA closure plan to IDEQ, within thirty (30) days of the effective date of this agreement, which shall incorporate by reference the OU 3-13 ROD and all parts thereof and which IDEQ will consider as alternative requirements for closure for the SFE-20 tank system under 40 CFR 265.110(d). The closure plan shall identify those portions of the SFE-20 tank system which are covered under the OU 3-13 ROD and any parts of the SFE-20 tank system which are outside the scope of the OU 3-13 ROD. For any and all modifications necessary to the closure plan for those items covered by the OU 3-13 ROD, modifications will be made through the process outlined in the FFA/CO and 40 CFR 265.112(c). For any and all modifications for that part of the SFE-20 tank system that is not covered by and cannot be made part of the OU 3-13 ROD, modifications will be made in accordance with the criteria outlined in HWMA/RCRA **(IDAPA 58.01.05.009) (40CFR 265, Subpart G)**.

This closure plan incorporates the OU 3-13 ROD by reference and consists of the following sections:

- o Section 2 presents a description of the facility including the VES-SFE-20 description, operating history, and regulatory status.
- o Section 3 presents the closure boundaries and closure performance standards.
- o Section 4 presents a Regulatory Requirements Matrix identifying the IDAPA 58.01.05.009 (40 CFR 265 Subpart **G**) closure requirements and demonstrating how the remedial action represents compliance with the closure requirements. The matrix identifies the alternative requirements [under 40 CFR 265.110(d)] to the interim status closure requirements.
- o Section 5 provides references.
- o Appendix A includes drawings referenced in Section 2.

2. FACILITY DESCRIPTION

2.1 Site Description

The INEEL is controlled by the DOE and encompasses approximately 2,315 km² (894 mi²) on the eastern Snake River Plain in southeast Idaho. Formerly named the National Reactor Testing Station, the INEEL was established as a site where the DOE could safely build, test, and operate various types of nuclear facilities. The hydrology of the INEEL has been extensively described in previous HWMA/RCRA closure plans, permit applications, and CERCLA documents, such as the *Comprehensive Remedial Investigation (RI)/Feasibility Study (FS), Part A, RI/Baseline Risk Assessment (BRA) Report for the Idaho Chemical Processing Plant OU 3-13* (DOE-ID 1997); therefore, a detailed discussion is not provided in this plan.

The VES-SFE-20 tank is located approximately 17 ft beneath the Chemical Processing Plant (CPP)-642 building, which is part of the CPP-603 Facility. Building CPP-642 is located just east of the CPP-603 facility. See Figure 1 for the location of VES-SFE-20 and the CPP-603 facility in the INTEC.

2.2 VES-SFE-20 Tank System Description and History

2.2.1 System Description

The VES-SFE-20 system includes the VES-SFE-20 tank, tank vault, access tunnel, associated pump pit, and CPP-642 building with related piping and instrumentation. The tank, tank contents, the tank vault, pump pit, and associated piping are identified as CERCLA Site CPP-69 and will be removed as part of the remedial action described the OU 3-13 ROD. An isometric view of the tank system is shown in Figure 2.

The VES-SFE-20 hot waste tank system, including the CPP-642 pump house, was constructed in 1957 to collect low-level liquid wastes from the south basin area of CPP-603 and the Fuel Receiving and Storage Facility. Floor drains in the receiving area, decontamination pad, and Fuel Examination and Cutting Facility (FECF) collected decontamination solutions, liquids from the shipping casks, and other hot waste liquids. Liquid wastes flowed by gravity through underground lines to the VES-SFE-20 tank. A more detailed description of the system boundaries is given in Section 3.1.

2.2.2 Regulatory Background and Status

DOE has taken the position that the VES-SFE-20 tank system is not a HWMNRCRA-permitted or interim status treatment, storage, and disposal facility (TSDF) and that a closure plan is, therefore, not required. While IDEQ does not agree with that position, IDEQ and DOE have agreed to "...resolve this matter fully and finally as between them..." via the MOA.

VES-SFE-20 was abandoned in 1976, which was prior to the 1980 effective date of the RCRA regulations. As a result of the activities performed in 1976, the VES-SFE-20 tank, tank vault, ancillary components, and any wastes in the system were abandoned in place. The tank system was replaced by VES-SFE-126. The VES-SFE-20 abandonment is documented in the 1991 FFA/CO (DOE-ID 1991) and the October 1999 Final OU 3-13 ROD (DOE-ID 1999). Based on these factors, the IDEQ, EPA, and the DOE (Agencies) recognized the abandoned system has the potential to release the constituents to the environment and required analysis under the FFNCO. The VES-SFE-20 is identified as Group 7, VES-SFE-20 Hot Waste Tank System, in the ROD. As mentioned previously, the Agencies selected to remove the threat of release from this abandoned system with a remedy of removal, treatment, and disposal (DOE-ID 1999). Therefore, all HWMA/RCRA closure actions identified in this closure plan will be performed under CERCLA, and the remediation of this area will follow the applicable or relevant and appropriate requirements (ARARs) as identified by the Agencies and provided in Section 12 of DOE-ID (1999).

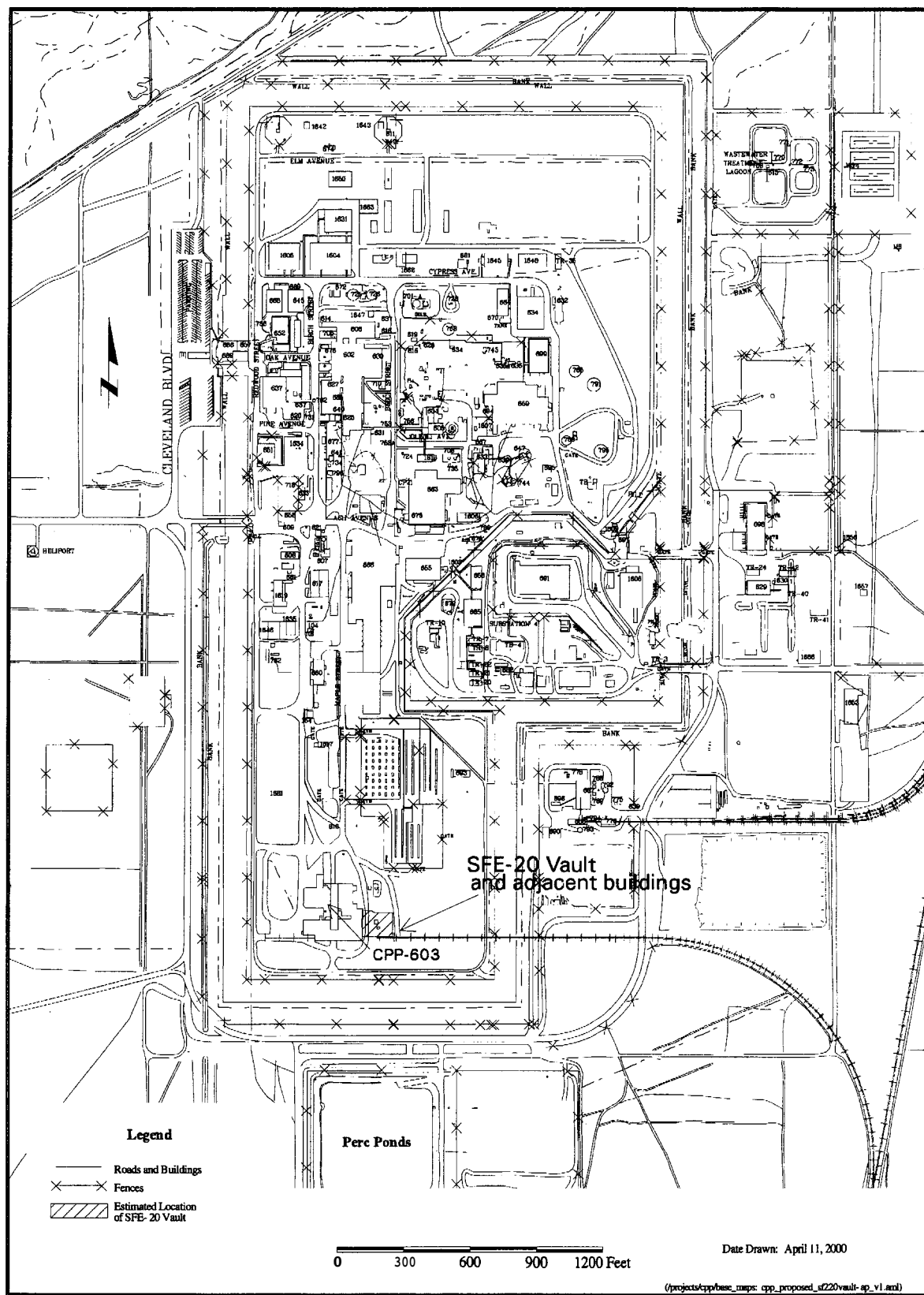
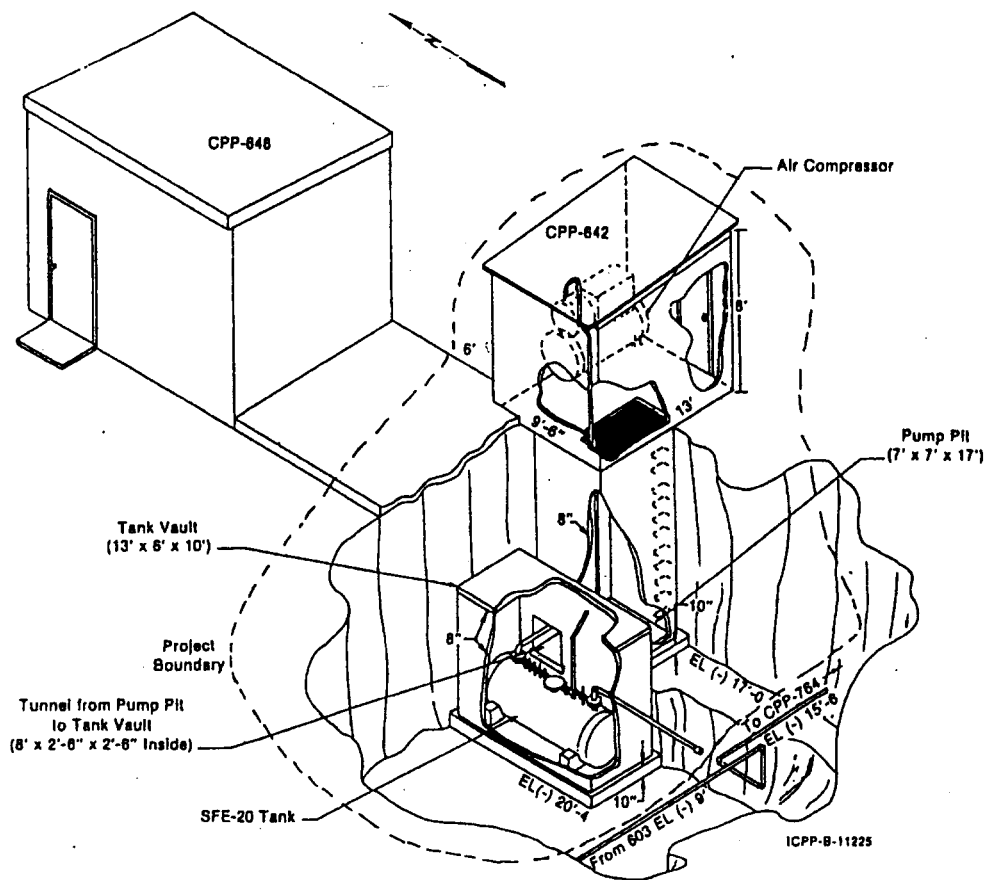


Figure 1. Location of VES-SFE-20 and the CPP-603 facility in the INTEC.



Isometric view of tank vault and pump pit.

Figure 2. Isometric view of the VES-SFE-20 tank system.

3. VES-SFE-20 CLOSURE

3.1 System Boundaries

The boundaries of the VES-SFE-20 tank system to be closed are those described by the OU 3-13 ROD (DOE-ID 1999). The system is specifically defined in the ROD, Section 4.7, as "...the tank contents, tank and associated structures located east of Building CPP-603..." Additional information is found in the ROD under the selected alternative for Group 7 (Section 11.1.7), which indicates that excavated tank components and soil will be managed as a remediation waste. Based on historical information, the lines that fed the VES-SFE-20 tank and transferred waste to the Process Equipment Waste Evaporator (PEW) were isolated from this tank and incorporated into other tank systems when the use of the VES-SFE-20 tank was abandoned in 1976. The SFE-20 tank system is comprised of the abandoned tank, ancillary piping, and equipment, and will be removed as part of the remedial action. Piping and instrumentation drawings (P&IDs) 093025, 055345, and 056612 (Appendix A) show the tank and piping that will be removed (highlighted in yellow). It should be noted that additional pipelines, the structure, and equipment not associated with waste processing may require removal to accommodate tank remediation and are not listed here because they are not relevant to the RCRA closure. The aboveground structure located directly above the pump pit (highlighted in green), including the internal components such as the air compressor, will also be removed.

The following is the VES-SFE-20 system that will be closed under this closure plan:

- **VES-SFE-20 Tank, Tank Vault, and Tank Contents.** This includes the actual tank and all materials in the tank. It also includes these tank vault and tank vault components:
 - All pipe, valves, and ancillary plumbing in the vault
 - Any residual debris or equipment in the vault
 - Sediments in the vault
 - Insulating materials.
- **VES-SFE-20 Tank Accessway.** This includes the accessway, piping, insulation, and debris.
- **VES-SFE-20 Manhole and Pump Pit.** This includes the structure and contents, such as any sediments in the pump pit, abandoned pumps, piping, valves, and insulation.
- **Surrounding Soils.** Should soil be encountered that exhibits contaminant levels above the remedial action objectives (RAOs) in DOE-ID (1999), the soils would be removed, treated if necessary, and disposed of in the INEEL CERCLA Disposal Facility (ICDF). If contaminated soils are associated with another CERCLA/RCRA release site in the area, the soils will be addressed by a subsequent remedial action.
- **Building CPP-642 and Contents.** Building CPP-642, including interior equipment, will need to be demolished and removed for access to the tank. Some equipment and piping in this building was exposed to process waste and will be disposed of in the ICDF.

The lines that fed the VES-SFE-20 tank and transferred waste to the PEWE at the time the tank was abandoned were isolated from the VES-SFE-20 and incorporated into other tank systems in the 1970s. VES-SFE-20 lines included in this closure are described below:

- **Two-Inch Vent Line.** This line has a high-efficiency particulate air filter on it. It is still in place and will be addressed as part of the **VES-SFE-20** tank system remediation.
- **Pipeline PLA-104804.** This 1.5-in. waste transfer line was used to transfer the liquid waste to the INTEC tank farm. The portion of this line that was only part of the VES-SFE-20 tank system is shown in Drawings 093025 and **056612** (Appendix A). Therefore, the portion of this line that will be removed includes sections in the manhole accessway, tank vault, and the pipe corridor, including the capped section, between VES-SFE-20 tank and VES-SFE-106 (comdor is shown on Drawing **055345** in Appendix A) that has not been used by VES-SFE-106.
- **Pipeline PLA-100116.** This 4-in. waste line fed the tank from CPP-603 floor drains. This influent line will be excavated to the point where it is cut and capped outside of the tank which extends approximately 10ft to the south of the tank vault (as highlighted on Drawing **055345**, also attached). It should be noted that Drawing **055345** (Appendix A) is not to scale. The rest of the line is addressed in the closure report for the VES-SFE-126 tank (INEEL 2000).
- **Two-Inch Acid Fill Line.** Used for adding nitric acid to the tank, this line extends to the surface and is still connected. This line will be completely addressed as part of the remedial action.
- **One-Inch Sparge Line.** This line was used for air sparging that employed to mix the tank. It is capped and will be remediated with the tank.
- **One-Inch Steam Line.** This item consists of two lines: one fed steam to the tank and one returned condensate from the tank for heating. These lines have been capped. Portions of this line in the tank vault will be removed under this remediation.
- **Half-Inch Suction and One-Inch Drain Lines.** These lines were used for sampling the tank and will be removed during the remedial action.
- **Two-Inch Pump Suction (Effluent) Line.** This line ~~has~~ been removed in the vault and will be removed to **CPP-648**, where the lines ~~are~~ capped. This line is 1.5 in. in diameter outside of the tank vault. The rest of this line was used for SFE-106 and is no longer part of this system (see Drawing 056612 in Appendix A).

3.1.1 Closure Performance Standards

The IDEQ/DOE MOA states

4. There ~~is~~ agreement that the **SFE-20** tank system will be remediated under the methods and standards and requirements stated in the OU 3-13 ROD and that completion of the requirements in the ROD will protect human health and the environment, **and** will satisfy or be modified to satisfy the closure performance standards of **40 CFR** Part 265.111(a) and (b). The ROD will be modified or expanded, as required using the process outlined in the FFA/CO.

According to **40 CFR** 265.111(a) and (b) the closure performance standards for the VES-SFE-20 tank system are as follows:

The tank system must be closed in a manner that

- Minimizes the need for further maintenance
- Eliminates, to the extent necessary to protect human health and the environment, the post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the groundwater, surface water, or the atmosphere.

Pursuant to the authority of 40 CFR 265.110(d), the closure performance standard at 40 CFR 265.111(c) is excluded by the MOA, and the alternative enforceable document (the OU 3-13 ROD) acts in its stead. Since all portions of the tank system have been determined to be covered by the OU 3-13 ROD, it is not necessary to comply explicitly with the detailed requirements of 40 CFR 265 Subpart G or the requirements of §§ 265.197, 265.228, 265.258, 265.280, 265.310, 265.351, 265.381, 265.404, and 264.1102 as applicable. 40 CFR 265.197 contains the closure and post-closure requirements for tanks and tank systems. Based on the MOA, and the alternative enforceable document (the OU 3-13 ROD), these detailed closure performance standards for tanks do not apply to the VES-SFE-20 and are not addressed in this closure plan.

4. REGULATORY REQUIREMENTS MATRIX

Section 4 comprises a table giving (1) regulatory citations and summaries from the relevant sections of the Idaho Administrative Procedures Act (IDAPA) and 40 CFR 265, Subpart G, and (2) the compliance methodology used for the VES-SFE-20 tank system.

Table 4-1. Regulatory requirements matrix.

Regulatory Citation and Summary IDAPA 58.01.05.009 (40 CFR 265 Subpart G)	VES-SFE-20 Compliance Methodology
<p>§ 265.110 (a) §§ 265.111 through 265.115 apply to owners and operators of all hazardous waste management facilities</p>	<p>The Agencies recognized that the abandoned system has the potential to release hazardous constituents in the system to the environment and required analysis under the <i>FFNCO</i>. Characterization and remediation of the VES-SFE-20 tank system will be performed in accordance with the Waste Area Group (WAG) 3 Operable Unit 3-13 ROD selected remedy for the Group 7, SFE-20 Hot Waste Tank System. The selected remedy is removal, treatment, and disposal (DOE-ID 1999). This HWMNRCRA closure plan has been prepared according to the closure requirements in 40 CFR 265 Subpart G and referencing the ROD as described in the IDEQ/DOE MOA (Allred 2001).</p>
<p>(b) §§ 265.116 through 265.120 (which concern post-closure care) apply to the owners and operators of</p> <p>(1) all hazardous waste disposal facilities</p> <p>(2) apply to the owners and operators of waste piles and surface impoundments if these sections are made applicable by § 265.228 or § 265.258, respectively</p> <p>(3) §§ 265.116 through 265.120 apply to the owners and operators of tank systems if these sections are made applicable by § 265.197</p> <p>(4) §§ 265.116 through 265.120 apply to the owners and operators of containment buildings if these sections are made applicable by § 265.1102</p>	<p>(1) Post-closure care requirements do not apply to the VES-SFE-20 tank system. The remedial action will be conducted in compliance with the ARARs established for Group 7, SFE-20 Hot Waste Tank System in the ROD (Section 12.2).</p> <p>(2) The VES-SFE-20 is not a waste pile or surface impoundment.</p> <p>(3) The VES-SFE-20 system is a tank system and is identified as such in the DOE/IDEQ MOA for the VES-SFE-20 hot waste tank system (Allred 2001). The MOA excludes the HWMNRCRA closure performance standards addressed in 40 CFR 265.111(c), which references 40 CFR 265.197, “Closure and post-closure care.”. Therefore, this HWMA/RCRA closure plan addresses only the closure performance standards at 40 CFR 265.111(a) and (b) which will be achieved through the remedy selected in the WAG 3 OU3-13 ROD as referenced.</p> <p>(4) The VES-SFE-20 is not a containment building.</p>

Table 4-1. (continued).

Regulatory Citation and Summary IDAPA 58.01.05.009 (40 CFR 265 Subpart G)	VES-SFE-20 Compliance Methodology
<p>§ 265.110 (c) § 265.121 applies to owners and operators of units that are:</p> <ul style="list-style-type: none"> • subject to 40 CFR 270.1 (c)(7) • regulated under an enforceable document 	<p>(c) “Enforceable document” means an order, a plan, or other document issued by EPA or by an authorized State under an authority that meets the requirements of 40 CFR 271.16(e) including, but not limited to, a corrective action order issued by EPA under section 3008(h), a CERCLA remedial action, or a closure or post-closure plan. The IDEQ/DOE MOA, Item 5, states “There is agreement that the ROD for OU 3-13 is an enforceable document.” (Allred 2000)</p> <p>Appendix B, Table B-1, lists the ROD sections applicable to the VES-SFE-20 tank system.</p>
<p>(d) The Regional Administrator may replace the requirements of 40 CFR 265 Subpart G and the unit-specific standards called out at § 265.111 (c) with alternative requirements set out in an approved closure plan, an approved post-closure plan, or an enforceable document, where the Regional Administrator determines;</p> <p>(1) a release has occurred, and both the regulated unit and one of the other solid waste management units or areas of concern are likely to have contributed to the release and;</p>	<p>1) The IDEQ/DOE MOA provides the ability to use the VES-SFE-20 tank system remedial action presented in the ROD as alternative requirements under 265.110(d)(1). Item 6 of the IDEQ/DOE MOA states “There is agreement that DOE will submit a HWMA/RCRA closure plan to IDEQ which shall incorporate by reference the OU 3-13 ROD and all parts thereof and which IDEQ will consider as alternative requirements for closure for the SFE 20 tank system under 40 CFR 265.110(d)” (Allred 2001). According to the Item #3 of the MOA, the VES-SFE-20 tank system “...is situated among solid waste management units (SWMU’ s) and areas of concern where various releases have occurred, and to which the SFE-20 tank system may have contributed.” Therefore, the remedial action requirements in the ROD, which is an enforceable document, are alternative requirements to the interim status closure requirements.</p>

Table 4-1. (continued).

Regulatory Citation and Summary IDAPA 58.01.05.009 (40 CFR 265 Subpart G)	VES-SFE-20 Compliance Methodology
<p>(2) If these alternative requirements are protective of human health and the environment, and satisfy the closure performance standard at § 265.111 (a) and (b)</p>	<p>(2) According to the IDEQ/DOE MOA, the remedial action for the VES-SFE-20 tank system will be considered as alternative requirements. Specifically, the IDEQ/DOE MOA says DOE will submit a HWMA/RCRA closure plan to IDEQ which shall incorporate by reference the OU 3-13 ROD and all parts thereof as alternative requirements. The alternative requirements will be protective of human health and the environment and will satisfy the closure performance standards at § 265.111 (a) and (b). The VES-SFE-20 tank system will be remediated under the methods, standards, and requirements stated in the OU 3-13 ROD. Completing the requirements in the ROD will protect human health and the environment and will satisfy or be modified to satisfy the closure performance standards of 40 CFR 265.111(a) and (b).</p>
<p>§ 265.111 The facility must be closed in a manner that (a) minimizes the need for further maintenance;</p>	<p>(a) The Group 7, VES-SFE-20 Hot Waste Tank System, remedial action will be performed to minimize the need for further maintenance subsequent to closure of these tanks. The Final ROD Declaration (Page x) and Section 11.1.7 of the ROD state the selected alternative for the VES-SFE-20 hot waste tank system is removal, treatment, and disposal (DOE-ID 1999). The remedial action includes</p> <ul style="list-style-type: none"> • Removing and treating the liquid and sludge contents of the tank • Excavating and removing the tank, vault, and associated structures • Land disposing treated waste, the tank, vault, and other debris. <p><i>The Remedial Design/Remedial Action Scope of Work for Waste Area Group 3 Operable Unit 3-13</i> (DOE-ID 2000a), Section 4.3.7.2, states “The implementation phase for Group 7 Hot Waste Tank will consist of excavation, data collection, safe removal of contaminated media, treatment of tank liquid and sludge, structure removal, soil removal and waste disposal.” Confirmatory sampling will be performed and sample data will be used to confirm the remedial action objectives (RAOs) have been met and the remedial action is completed.</p> <p>Note: The <i>RD/RA Scope of Work</i> is a FFA/CO document required to be submitted to the agencies 21 days after issuance of the ROD (DOE-ID 1999).</p>

Table 4-1. (continued).

Regulatory Citation and Summary IDAPA 58.01.05.009 (40 CFR 265 Subpart G)	VES-SFE-20 Compliance Methodology
<p>(b) eliminates, to the extent necessary to protect human health and the environment, the post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the groundwater, surface water or the atmosphere</p>	<p>(b) The remedial action described in the OU 3-13 ROD (DOE-ID 1999) will comply with the items in this requirement as follows:</p> <p><i>[Eliminate, to the extent necessary to protect human health and the environment, the post-closure escape of hazardous waste]:</i> The VES-SFE-20 tank contents, tanks, vaults, equipment and contaminated soils (if any) will be removed as part of the remedial action.</p> <p><i>[Eliminate, to the extent necessary to protect human health and the environment, the post-closure escape of hazardous constituents.]:</i> Excavation and removal of the tank, tank vault, pump pit enclosures and other associated structures and removing contaminated soils, if necessary, will ensure there is no post-closure escape of hazardous constituents.</p> <p><i>[Eliminate, to the extent necessary to protect human health and the environment, the post-closure escape of leachate]:</i> System components and contaminated soils will be removed, therefore eliminating the post-closure escape of leachate.</p> <p><i>[Eliminate, to the extent necessary to protect human health and the environment, the post-closure escape of contaminated run-off]:</i> Removing system components and contaminated soils will also remove hazardous constituents. Therefore, post-closure escape of contaminated run-off will not occur.</p> <p><i>[Eliminate, to the extent necessary to protect human health and the environment, the post-closure escape of hazardous waste decomposition products]:</i> Removing the tanks and system components and contaminated soils will eliminate the threat of post-closure escape of hazardous waste decomposition products.</p>
<p>(c) complies with the requirements of 40 CFR 265 Subpart G and the requirements of §§ 265.197, 265.228, 265.258, 265.280, 265.310, 265.351, 265.381, 265.404, and 265.1102 as applicable</p>	<p>(c) This requirement is not applicable to the SFE-20 tank system closure. The IDEQ/DOE MOA, Item 4, states, “There is agreement that the SFE-20 tank system will be remediated under the methods and standards and requirements stated in the OU 3-13 ROD and that completion of the requirements in the ROD will protect human health and the environment, and will satisfy or be modified to satisfy the closure performance standards of 40 CFR 265.111(a) and (b).” (Allred 2001)</p>

Table 4-1. (continued).

<p>Regulatory Citation and Summary IDAPA 58.01.05.009 (40 CFR 265 Subpart G)</p>	<p>VES-SFE-20 Compliance Methodology</p>
<p>§ 265.112 (a) Written Plan. By May 19, 1981 or by six months after the effective date of the rule that first subjects a facility to provisions of this section, the owner or operator of a hazardous waste management facility must have a written closure plan. This closure plan must be furnished to the Regional Administrator upon request.</p>	<p>(a) In accordance with the IDEQ/DOE MOA, DOE is submitting this HWMA/RCRA closure plan to IDEQ, incorporating by reference the OU 3-13 ROD which IDEQ will consider as alternative requirements for closure for the VES-SFE-20 tank system under 40 CFR 265.110(d).</p>
<p>(b) Content of the Plan. The closure plan must identify steps necessary to perform partial and/or final closure of the facility at any point during its active life. The closure plan must provide a description of</p> <p>(1) how each hazardous waste management unit at the facility will be closed in accordance with § 265.111; and</p> <p>(2) The closure plan must provide a description of final facility closure and must identify the maximum extent of operation that will be unclosed during the active life of the facility; and</p>	<p>(1) The steps for completing closure of the VES-SFE-20 tank system are the remedial actions described in the WAG 3 OU 3-13 ROD and incorporated by reference in this closure plan.</p> <p>As an alternative requirement to 40 CFR 265.112(b)(1), this plan does not include descriptions of how each hazardous waste management unit at the facility will be closed.</p> <p>(2) As an alternative requirement to 40 CFR 265.112(b)(2), this plan does not include a description of final facility closure. This closure plan references the OU 3-13 ROD, which describes the selected remedies for release sites in WAG 3 OU 3-13.</p> <p>As an alternative requirement to 40 CFR 265.112(b)(2), this closure plan does not include a description of the maximum extent of unclosed operations.</p>

Table 4-1. (continued).

Regulatory Citation and Summary IDAPA 58.01.05.009 (40 CFR 265 Subpart G)	VES-SFE-20 Compliance Methodology
<p>(3) The closure plan must include an estimate of the maximum inventory of hazardous waste ever on-site over the active life of the facility and a detailed description of the closure methods including:</p> <ul style="list-style-type: none"> • Waste removal, • Waste transportation, • Waste treatment, • Waste storage, and • Waste disposal. <p>As well as the identification and type of off-site hazardous waste management unit to be used; and</p>	<p>(3) <i>[Maximum inventory of hazardous waste ever on site.]</i> As an alternative requirement to 265.112(b)(3), the maximum inventory of waste ever onsite is not addressed in this closure. As described in the <i>Characterization Work Plan</i> (DOE-ID 2000b), the working capacity of the VES-SFE-20 tank was less than the 640-gal design capacity. In 1984, the tank contained approximately 55 gal of sediment and approximately 1,514 L (400 gal) of liquid (DOE-ID 2000b)</p> <p><i>[Detailed description of the closure methods including waste removal, transportation, treatment, storage and disposal].</i> As an alternative requirement per 40 CFR 265.112(d), the closure methods are those addressed in the ROD and will be described in detail in the VES-SFE-20 RD/RA Work Plan. The ROD (DOE-ID 1999) describes the following actions for the remediation of the VES-SFE-20 tank system and soils:</p> <ul style="list-style-type: none"> • Removing and treating the liquid and sludge contents of the tank • Excavating and removing the tank, vault, and associated structures • Land disposing treated waste, the tank, vault, and other debris. <p>Implementing the VES-SFE-20 tank system remedial action is described in DOE (2000a) as follows, “the implementation phase for Group 7 Hot Waste Tank will consist of excavation, data collection, safe removal of contaminated media, treatment of tank liquid and sludge, structure removal, soil removal, and waste disposal. Onsite disposal of the soil, tank and associated structures is planned for the ICDF. Offsite disposal of the liquid and sludge is anticipated.” All waste generated during these activities will be managed (stored and disposed of) as CERCLA waste. Refer to 40 CFR 265.114.</p>

Table 4-1. (continued).

Regulatory Citation and Summary IDAPA 58.01.05.009 (40 CFR 265 Subpart G)	VES-SFE-20 Compliance Methodology
<p>(4) The closure plan must include a detailed description of the steps necessary to remove or decontaminate all hazardous waste residues, soils, and contaminated equipment. The closure plan must include:</p> <ul style="list-style-type: none"> • Decontamination procedures, • Contaminated soil removal procedures, • Soil sampling procedures, and • Performance standard criteria; and <p>(5) The closure plan must include a detailed description of all other activities required to meet the performance standard including:</p> <ul style="list-style-type: none"> • Groundwater monitoring, • Leachate collection, and • Run-on and run-off control; and 	<p>(4)</p> <p><i>[Decontamination Procedures]:</i> Decontamination of the tank and system components is not planned as the remedial action will be removal of these components.</p> <p><i>[Contaminated soil removal procedures]:</i> Specific contaminated soil removal procedures will be addressed in the future in OU 3-13 Group 7, VES-SFE-20 Hot Waste Tank RD/RA Work Plan. The Draft Title II (90%) RD/RA Work Plan is a primary document and has an enforceable milestone of February 26, 2003.</p> <p><i>[Soil sampling procedures].</i> Specific soil sampling procedures will be addressed, as applicable, in the VES-SFE-20 RD/RA Work Plan.</p> <p><i>[Performance Standard Criteria]:</i> The VES-SFE-20 tank system will be considered closed when the following performance standard criteria have been met:</p> <ul style="list-style-type: none"> • All hazardous waste has been removed from the system. • Tank, system components, and ancillary piping have been removed. • Contaminated soil (if present) has been removed to the extent necessary to protect human health and the environment. • All waste has been managed appropriately as CERCLA waste. <p>(5) Additional VES-SFE-20 tank system remedial action steps and procedures will be detailed in the OU 3-13 Group 7 VES-SFE-20 Hot Waste Tank System RD/RA Work Plan. Groundwater monitoring, leachate collection, and run-on and runoff controls are not applicable to this closure.</p>

Table 4-1. (continued).

Regulatory Citation and Summary IDAPA 58.01.05.009 (40 CFR 265 Subpart G)	VES-SFE-20 Compliance Methodology
<p>(6) the plan must include a schedule for closure of each hazardous waste management unit and for final facility closure; and</p> <p>(7) For facilities that use trust funds to demonstrate financial assurance and whose remaining life is less than 20 years and for facilities without an approved closure plan, an estimate of the expected year of final closure must be provided; and</p> <p>(8) The closure plan must include all alternative requirements applied by the Regional Administrator or a reference to the enforceable document that contains those requirements</p>	<p>(6) This closure plan includes only the schedule for submitting the Draft Title II (90%) Design RD/RA Work Plan. According to the <i>FFA/CO Action Plan</i> (DOE-ID 1991), the RD/RA Work Plan is a primary document and the submittal date of February 26, 2003, is an enforceable milestone. The remedial action schedule will be provided in the Work Plan and is, therefore, not included in this plan. The IDEQ will accept this alternative requirement to 40 CFR 265.112(b)(6).</p> <p>(7) The schedule for final closure is of the VES-SFE-20 will be included in the VES-SFE-20 RD/RA Work Plan. The Draft Title II (90%) Design RD/RA Work Plan will be submitted to the Agencies on February 26, 2003, which is an enforceable milestone. Deferring the remedial action schedule for final closure to the VES-SFE-20 RD/RA Work Plan is an alternative requirement to 40 CFR 265.112(b)(7).</p> <p>(8) According to the MOA, this closure plan incorporates the ROD by reference and therefore includes alternative requirements that will be protective of human health and the environment and will satisfy the closure performance standard at § 265.111 (a) and (b). The MOA states the DOE will submit a HWMA/RCRA closure plan to IDEQ which shall incorporate by reference the OU 3-13 ROD and all parts thereof as alternative requirements. In addition, the IDEQ/DOE MOA, Item 5, states “There is agreement that the ROD for OU 3-13 is an <i>enforceable document</i>.”</p>
<p>§ 265.112</p> <p>(c) 40 CFR 265.112(c) contains provisions for amendment of the closure plan. Instances in which the closure plan must be amended are specified and dates for submittal of amendments are included.</p>	<p>(c) Per Item 4 of the MOA, the VES-SFE-20 tank system will be remediated under the methods, standards, and requirements stated in the OU 3-13 ROD, and completion of the requirements in the ROD will protect human health and the environment and will satisfy or be modified to satisfy the closure performance standards of 40 CFR 265.111(a) and (b). Public review will occur if the ROD has to be modified or if a closure activity is not covered in the ROD.</p>

Table 4-1. (continued).

<p>Regulatory Citation and Summary IDAPA 58.01.05.009 (40 CFR 265 Subpart G)</p>	<p>VES-SFE-20 Compliance Methodology</p>
<p>§ 265.112</p> <p>(d) Notification of partial closure and final closure</p> <p>(1) The owner or operator must submit the closure plan to the Regional Administrator the specified number of days prior to the date he expects to begin closure: 180 days for surface impoundments, waste piles, land treatment units, or landfills; 45 days for boilers, industrial furnaces, tank systems, container storage units, or incinerators. Owners or operators with approved closure plans must notify the Regional Administrator in writing the specified number of days prior to the date he expects to begin closure: 60 days for surface impoundments, waste piles, land treatment units, or landfills; 45 days for boilers, industrial furnaces, tank systems, container storage units, or incinerators</p> <p>(2) The date the owner or operator expects to begin closure must be within 30 days of the last receipt of hazardous waste unless there is a reasonable possibility that the unit will receive additional waste within one year, or within 30 days of the last receipt of nonhazardous waste unless there is a reasonable possibility that the unit will receive additional nonhazardous waste within one year for units meeting the requirements of § 265.113 (d)</p>	<p>(1) This closure plan incorporates the remedial action described in the ROD. The submittal dates for the closure plan and notification do not apply to this closure plan. The IDEQ will consider this an alternative requirement to 265.112(d) (1).</p> <p>(2) Since the Group 7, VES-SFE-20 Hot Waste Tank System, remedial action defined in the OU 3-13 ROD constitutes the HWMA/RCRA closure for the VES-SFE-20 hot waste tank system, the closure will begin according to the schedule provided in the Final VES-SFE-20 RD/RA Work Plan. Therefore, in accordance with the IDEQ/DOE MOA the IDEQ will consider this an alternative requirement to 265.112(d)(2).</p>

Table 4-1. (continued).

Regulatory Citation and Summary IDAPA 58.01.05.009 (40 CFR 265 Subpart G)	VES-SFE-20 Compliance Methodology
<p>(3) The closure plan must be submitted to the Regional Administrator within 15 days after termination of interim status when a permit is issued simultaneously with termination of interim status; or issuance of a judicial decree or final order to cease receipt of hazardous waste or close.</p> <p>(4) The Regional Administrator will allow a 30 -day period for written public comment. The Regional Administrator will, at his discretion, hold a public hearing. The Regional Administrator will give notice of a public hearing at least 20 days prior to the hearing.</p>	<p>(3) This requirement is not applicable to the VES-SFE-20 tank system. This system is not an interim status unit, nor is it under a judicial decree or final order to cease receipt of hazardous waste or close.</p> <p>(4) The Regional Administrator will not provide public comment of this closure plan. The Proposed Plan that summarized the results of the RI/FS and presented the preferred remedial alternatives was released by the Agencies for public review. Responses to the comments are summarized in the OU 3-13 Responsiveness Summary, which is Appendix A of the ROD. According to the IDEQ/DOE MOA, the IDEQ will consider this an alternative requirement for 265.112(d)4).</p>
<p>§ 265.112(e)</p> <p>An owner or operator with an approved closure plan may remove hazardous waste or dismantle and decontaminate equipment in accordance with that closure plan at any time before or after notification of closure.</p>	<p>This closure plan incorporates the remedial action for the VES-SFE-20 tank system described in the ROD and closure will commence according to the ROD and Final VES-SFE-20 RD/RA Work Plan. The IDEQ will consider this an alternative requirement for 265.112(e).</p>

Table 4-1. (continued).

Regulatory Citation and Summary IDAPA 58.01.05.009 (40 CFR 265 Subpart G)	VES-SFE-20 Compliance Methodology
<p>§ 265.113(a)</p> <p>(1) Within 90 days after the last receipt of waste, or within 90 days after approval of the closure plan, whichever is later, the owner or operator must treat, remove, or dispose of all hazardous waste in accordance with the approved closure plan. The Regional Administrator may approve a longer period if the activities will, of necessity, take longer than 90 days to complete, or the unit has the capacity to receive additional hazardous waste, there is a reasonable likelihood that operations will recommence within one year, and closure of the unit would be incompatible with continued site operations; and</p> <p>(2) The owner or operator is in compliance with all applicable interim status requirements</p>	<p>(1) As an alternative requirement to 265.113(a)(1), the treatment, removal and disposal of hazardous waste will be defined in the VES-SFE-20 RD/RA Work Plan according to the OU 3-13 ROD.</p> <p>(2) This requirement is not applicable to the VES-SFE-20 hot waste tank system. The VES-SFE-20 Tank is a CERCLA site within OU 3-13 and has been designated as Group 7 (VES-SF%-20 Hot Waste Tank System). The system is not an HWMA/RCRA interim status unit.</p>

Table 4-1. (continued).

Regulatory Citation and Summary IDAPA 58.01.05.009 (40 CFR 265 Subpart G)	VES-SFE-20 Compliance Methodology
<p>§ 265.113(b)</p> <p>(1) Within 180 days after the last receipt of waste, or within 180 days after approval of the closure plan, whichever is later, the owner or operator must complete closure in accordance with the approved closure plan. The Regional Administrator may approve a longer period if the activities will, of necessity, take longer than 180 days to complete, or the unit has the capacity to receive additional hazardous waste, there is a reasonable likelihood that operations will recommence within one year, and closure of the unit would be incompatible with continued site operations; and</p> <p>(2) The owner or operator is in compliance with all applicable interim status requirements</p>	<p>(1) As an alternative requirement to 265.113(b)(1), the closure schedule and time allowed for closure will be according the remedial action schedule in the Final VES-SFE-20 RD/RA and according to the OU 3-13 ROD.</p> <p>(2) The VES-SFE-20 tank system is a CERCLA site within OU 3-13 and has been designated as Group 7 (VES-SFE-20 Hot Waste Tank System). The system is not an HWMNRCRA interim status unit. Per the IDEQ/DOE MOA and as an alternative requirement, actions set out in the WAG 3 OU 3-13 ROD will be substituted for interim status closure requirements.</p>
<p>§ 265.113(c)</p> <p>(1) A request for extension to the 90-day closure requirement must be made at least 30 days prior to the expiration of the 90-day limit</p> <p>(2) A request for extension to the 180-day closure requirement must be made at least 30 days prior to the expiration of the 180-day limit unless deadlines in paragraph (d) of this section apply.</p>	<p>(1) The VES-SFE-20 tank system is a CERCLA site within OU 3-13 and has been designated as Group 7 (VES-SFE-20 Hot Waste Tank System). The system is not an HWMNRCRA interim status unit and as an alternative requirement to 265.113(c)(1) actions set out in the WAG 3 OU 3-13 ROD are incorporated as interim status closure requirements.</p> <p>(2) As an alternative requirement to 265.113(c)(2) the remedy identified in the WAG 3 OU 3-13 ROD and the final VES-SFE-20 RD/RA Work Plan schedule will be incorporated as interim status closure requirements. Therefore the request for extension requirements and time allowed for closure will not be applicable to the VES-SFE-20 tank system.</p>

Table 4-1. (continued).

Regulatory Citation and Summary IDAPA 58.01.05.009 (40 CFR 265 Subpart G)	VES-SFE-20 Compliance Methodology
§ 265.113 (d) 40 CFR 265.113(e) contains provisions for continued operation of a landfill, surface impoundment or land treatment unit to manage nonhazardous waste.	This provision does not apply to a tank system.
§ 265.113(e) 40 CFR 265.113(e) contains additional provisions for continued operation of a surface impoundment to manage nonhazardous waste.	The VES-SFE-20 is not a surface impoundment.
§ 265.114 All contaminated equipment, structures, and soil must be properly disposed of or decontaminated unless specified in §§ 265.197, 265.228, 265.258, 265.280, or 265.310. All waste generated as a result of closure must be handled in accordance with 40 CFR 262.	The contaminated equipment, structures, and soils associated with the selected remedy for Group 7, VES-SFE-20 Hot Waste Tank System, will be described in the VES-SFE-20 RD/RA Work Plan and will be properly disposed of as CERCLA waste. All waste generated will be handled as CERCLA waste which is an alternative requirement to 40 CFR 265.114 requiring waste to be handled in accordance with 40 CFR 262 .
§ 265.115 Within 60 days of the completion of final closure, the owner or operator must submit to the Regional Administrator a certification signed by the owner or operator and an independent, licensed, professional engineer that the unit has been closed in accordance with the approved closure plan.	As an alternative requirement to 40 CFR 265.115 , an independent professional engineer (PE) certification for the closure of the VES-SFE-20 tank system will not be submitted to the IDEQ. The closure will be documented through the CERCLA Prefinal Inspection Report (which documents the prefinal inspection performed by the DOE-ID, EPA, and IDEQ project managers) and the CERCLA Remedial Action Report, (which provides a statement certifying the remedy has achieved the requirements of the ROD as measured by the predetermined performance standards).

Table 4-1. (continued).

Regulatory Citation and Summary IDAPA 58.01.05.009 (40 CFR 265 Subpart G)	VES-SFE-20 Compliance Methodology
<p>§ 265.116 No later than the submission of the certification of closure of the hazardous waste management unit, the owner or operator must submit a survey plat to the authority with jurisdiction over local land use. The survey plat must show the location and dimensions of the hazardous waste management unit.</p>	<p> Closure of VES-SFE-20 system is not closure of a hazardous waste disposal unit. The remedial actions described in the ROD and referenced in this closure plan will constitute closure, and a survey plat will not be required.</p>
<p>§ 265.117 through § 265.120 Subpart G requirements for post-closure care.</p>	<p>Per the IDEQ/DOE MOA, 265.11(c) performance standards do not apply to this closure; therefore, the closure requirements of 40 CFR 265.197 (“Closure and post-closure care”) are not applicable. The remedial action described in the ROD, which is an enforceable document, will be protective of human health and the environment and therefore, per §265.110(d), alternative requirements to those found in 40 CFR 265.117 through 120 applied.</p>
<p>§ 265.121(a) Owners or operators who are subject to the requirement to obtain a post-closure permit, but who obtain an enforceable document in lieu of a post-closure permit must comply with the requirements 40 CFR 270.28; 40 CFR 264.101; and 40 CFR 264.91 through 264.100.</p>	<p>Per the IDEQ/DOE MOA, 265.11(c) performance standards do not apply to this closure; therefore, the closure requirements of 40 CFR 265.197 (“Closure and post-closure care”) are not applicable. The post-closure care and post-closure permit requirements are not applicable to the VES-SFE-20 system. The 5-year review process and post-closure monitoring requirements are addressed in the ROD (Sections 11.1.9 and 11.1.10) and will be implemented as appropriate.</p>
<p>§ 265.121(b) 40 CFR 265.121(b) contains provisions for the Regional Administrator to involve the public in facility post-closure.</p>	<p>According to the IDEQ/DOE MOA, the closure requirements of 265.11(c) do not apply; therefore, the post-closure care and post-closure permit requirements are not applicable to the VES-SFE-20 system.</p>

5. REFERENCES

- 40 CFR 262, July 2000, "Standards applicable to generators of hazardous waste," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 264.91, July 2000, "Required programs," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 264.100, July 2000, "Corrective action program," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 264.101, July 2000, "Corrective action for solid waste management units," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 265, Subpart G, "Closure and Post-Closure," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 265.1 10, July 2000, "Applicability," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 265.11 1, July 2000, "Closure performance standard," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 265.112, July 2000, "Closure plan; amendment of plan," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 265.1 13, July 2000, "Closure; time allowed for closure," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 265.1 14, July 2000, "Disposal or decontamination of equipment, structures and soils," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 265.115, July 2000, "Certification of closure," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 265.116, July 2000, "Survey plat," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 265.117, July 2000, "Post-closure care and use of property," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 265.1 18, July 2000, "Post-closure plan; amendment of plan," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 265.1 19, July 2000, "Post-closure notices," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 265.120, July 2000, "Certification of completion of post-closure care," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 265.121, July 2000, "Post-closure requirements for facilities that obtain enforceable documents in lieu of post-closure permits," *Code of Federal Regulations*, Office of the Federal Register.

- 40 CFR 265.197**, July 2000, "Closure and post-closure care," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 265.228**, July 2000, "Closure and post-closure care," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 265.258**, July 2000, "Closure and post-closure care," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 265.280**, July 2000, "Closure and post-closure," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 265.310**, July 2000, "Closure and post-closure care," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 265.351**, July 2000, "Closure," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 265.381**, July 2000, "Closure," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 265.404**, July 2000, "Closure," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 265.1102**, July 2000, "Closure and post-closure care," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 270.1**, July 2000, "Purpose and scope of these regulations," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 270.28**, July 2000, "Part B information requirements for post-closure permits," *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 27.1.16**, July 2000, "Requirements for enforcement authority" *Code of Federal Regulations*, Office of the Federal Register.
- 40 CFR 300**, July 2000, "National Oil and Hazardous Substances Pollution Contingency Plan " *Code of Federal Regulations*, Office of the Federal Register.
- 42 USC §9601 et seq., 1996**, "Comprehensive Environmental Response, Compensation, and Liability Act of 1986 (CERCLA/Superfund), *United States Code*.
- Allred, C. Stephen, DEQ, to Jerry L. Lyle (DOE-ID), March 19, 2001, "Memorandum of Agreement between the Idaho Department of Environmental Quality and the United States Department of Energy regarding submittal of a closure plan for the SFE-20 Hot Waste Tank System (SFE20 tank system)."
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- DOE-ID, November 1997, *Comprehensive RI/FS for the Idaho Chemical Processing Plant OU 3-13 at the INEEL-Part A, RI/BRA Report (Final)*, DOE-ID-10534, Rev. 0, U. S. Department of Energy Idaho Operations Office, Idaho Falls, Idaho.

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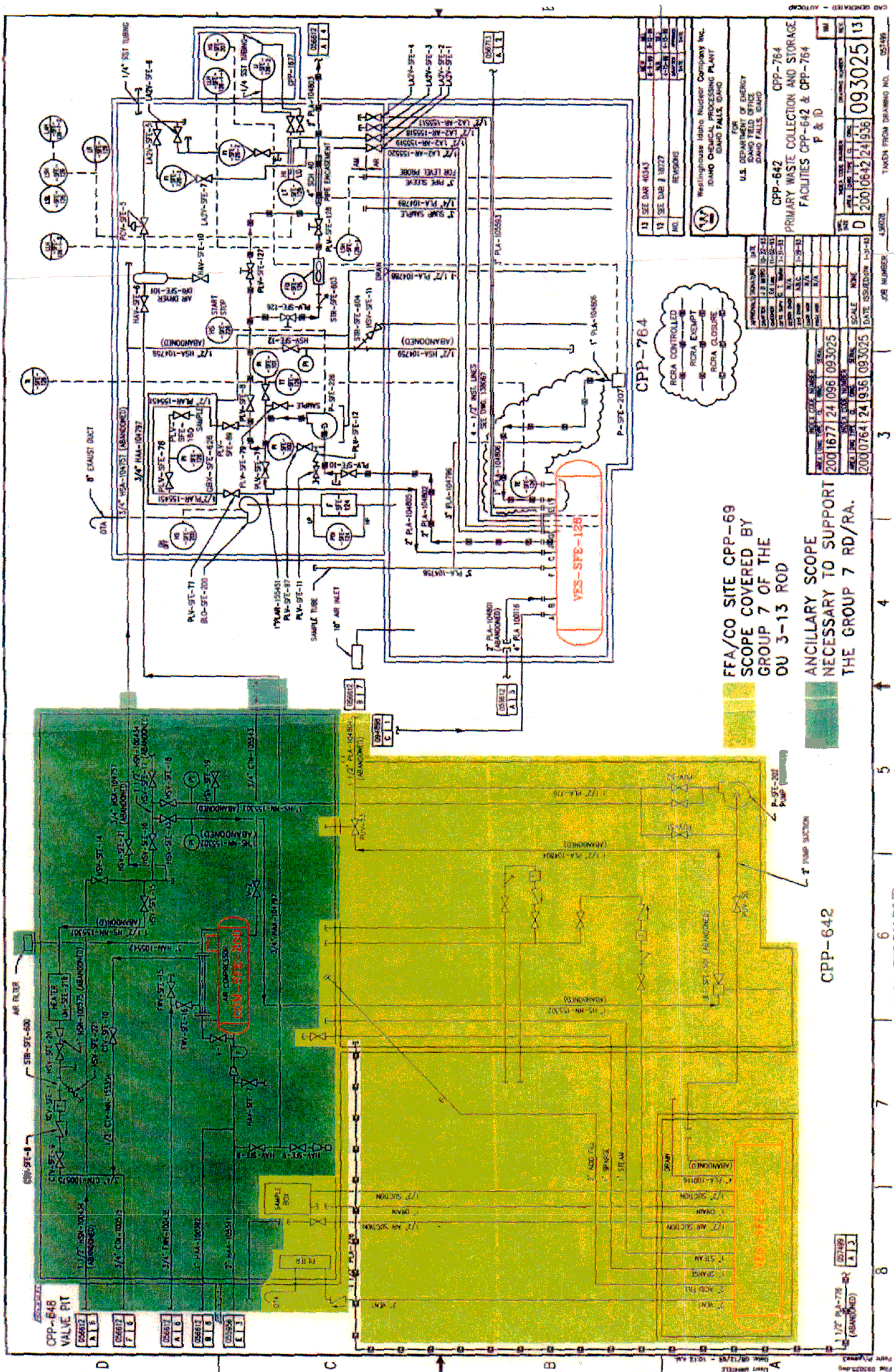
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Appendix A
P&IDs for the VES-SFE-20 Tank System



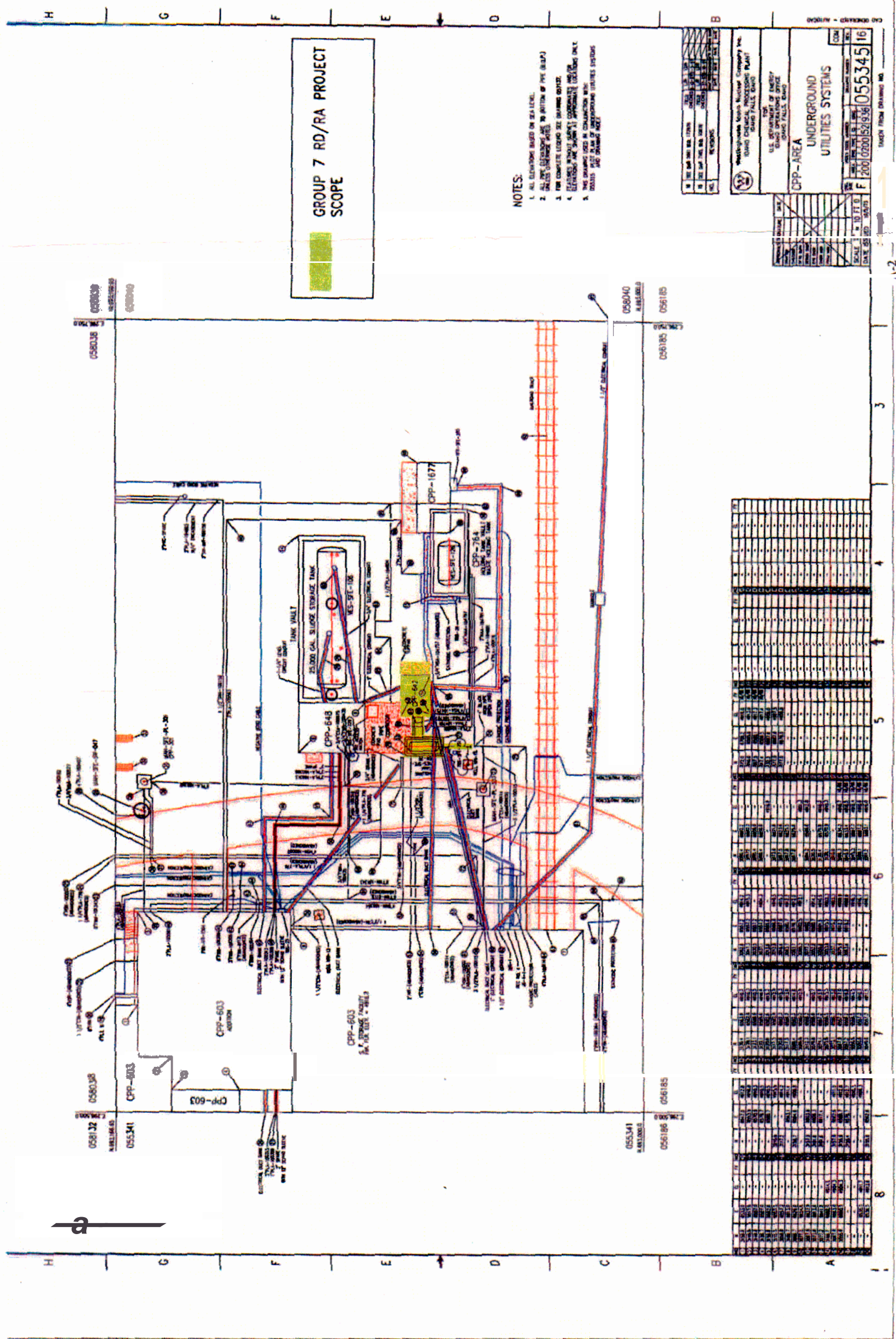
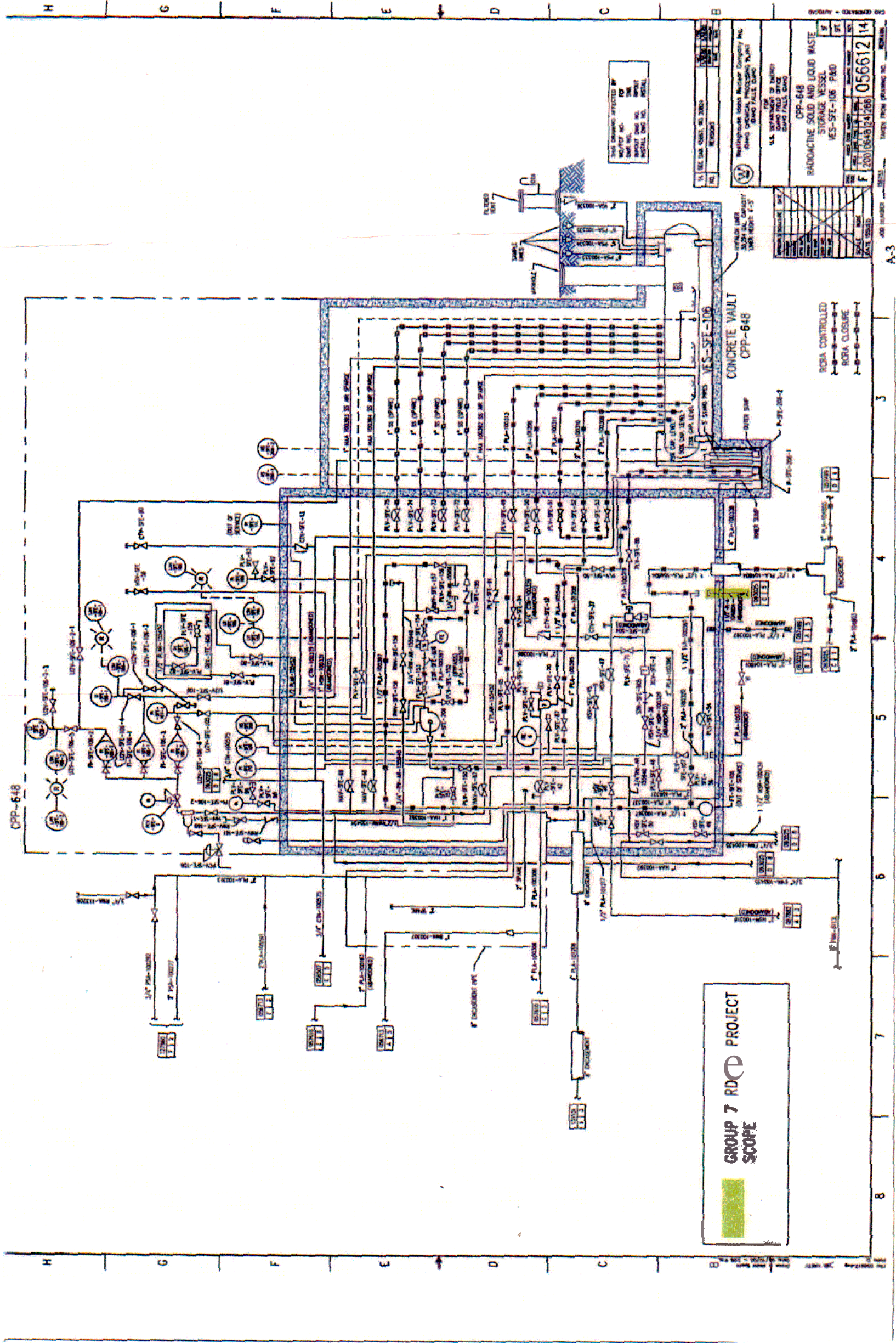


Figure A-2. Underground utilities systems.



Appendix B

Table of WAG 3 OU 3-13 ROD Sections Addressing the VES-SFE-20 Tank System

Appendix B

Table of WAG 3 OU 3-13 ROD Sections Addressing the VES-SFE-20 Tank System

Table B-1. WAG 3 OU 3-13 ROD sections addressing the VES-SFE-20 tank system.

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